Link Brown Director-Federal Regulatory

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Federal Communications Commission
Office of Secretary

May 9, 1997

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Ex Parte

Mr. William F. Caton Acting Secretary Federal Communications Commission 1919 M Street, N.W. Room 222 Washington, D.C. 20554

DOCKET FILE COPY ORIGINAL

Re: Local Telephone Number Portability, CC Docket No. 95-116

Dear Mr. Caton:

In accordance with Commission rules, please be advised that yesterday Patricia Diaz Dennis, Frank Meeks, Jay Bennett, Chris Jines, Jackie Roberts and the undersigned, representing SBC Communications Inc. ("SBC"), met with Neil Fried, Patrick Donovan, Lloyd Collier, Lenworth Smith, Christopher Barnekov, John Scott, Jim Lichford and Steve Funkhouser of the Common Carrier Bureau to discuss issues associated with the above-referenced docket.

Specifically, SBC presented an illustrative tariff designed to recover the costs associated with the implementation and ongoing provision of long-term local number portability. The SBC representatives provided a detailed discussion of the rate elements contained in the illustrative tariff as well as the cost causation principles associated with each rate element. The SBC representatives also provided the proposed timeline for filing the tariff. A copy of the illustrative tariff is attached along with a visual aid that depicts the cost causation elements.

No. of Copies rec'd DAL List ABCOE Mr. William F. Caton May 9, 1997

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Please do not hesitate to contact me at (202) 326-8890 if you have any questions.

Sincerely,

Link Brown

Attachment

cc: Mr. Fried

Mr. Collier

Mr. Donovan

Mr. Smith

Dr. Barnekov

Mr. Scott

Mr. Lichford

Mr. Funkhouser

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34. Service Provider Number Portability (SPNP) Service

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34.1 SPNP General Description

Service Provider Number Portability (SPNP) Service provides the ability of a local exchange telephone service customer to maintain the same Directory Number (DN) when changing from one telecommunications service provider to another while remaining at the same location. This capability is initially being activated in the Telephone Company's 13 largest Metropolitan Statistical Areas (MSA) on a switch specific basis and subsequently in the remaining Telephone Company end office switches based on receipt of bona fide requests.

SPNP Service is an advanced intelligent network capability which utilizes the common channel signaling network to query a data base to secure network routing instructions prior to completion of a call. For ported numbers, the data base contains information about an end user's choice of Local Service Provider (LSP) along with the appropriate Location Routing Number (LRN) for that LSP's serving switch that will be used to direct the call to the correct network switching element for completion to the end user customer. Where more than one network is involved in completing the call, the network just before the terminating network (i.e., the N-1 network) is responsible for querying the SPNP data base to secure the LRN which is then used in routing the call. Where the carrier of the N-1 network fails to secure the LRN, and forwards a call to a switch in the Telephone Company's network that serves a NXX designated as a number portable code in the Local Exchange Routing Guide (LERG), the Telephone Company will bill that N-1 carrier a default query charge as outlined in Section 34.4.1(C) of this tariff.

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34. Service Provider Number Portability (SPNP) Service (Cont'd)

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34.2 SPNP Service Application

There are three distinct applications of the SPNP network capability available through the Telephone Company's network:

- (A) SPNP Service
- (B) SPNP Query Service
 - Prearranged
 - Default
- (C) SPNP Data Base Query Service

Following are detailed descriptions of each of the available service applications.

34.2.1 SPNP Service

The Telephone Company queries the database on behalf of its local exchange and line side access service customers to enable completion of calls to numbers with NXX codes that have been designated as number portable. This capability is "automatically" provided as part of the dialing process employed in the Telephone Company's local exchange and access network.

On calls placed to numbers with NXX codes that have been designated as number portable, an originating LRN capable switch, using advanced intelligent network capabilities, will suspend call processing, formulate and launch a query via the common channel signaling network to a data base containing information necessary to route the call. When the necessary routing information has been returned to the originating central office switch from the data base, call processing is resumed and the call is routed to the correct network switching element for completion to the called party.

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ACCESS SERVICE

34. Service Provider Number Portability (SPNP) Service (Cont'd)

34.2 SPNP Service Application (Cont'd)

34.2.2 SPNP Query Service

(A) Prearranged

Customers terminating calls to numbers in the Telephone Company's network with NXX codes that have been designated as number portable may be responsible for making a query to a data base containing information necessary to route the call. This capability is provided under this tariff as an optional access service.

Customers responsible for making the data base query may arrange in advance to have the Telephone Company's end office or access tandem switch suspend call processing, formulate and launch a query via the common channel signaling network to a data base containing information necessary to route the call. When the necessary routing information has been returned from the data base to the switch that launched the query, call processing is resumed and the call is routed to the correct network switching element for completion to the called party.

(B) Default

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Customers, terminating calls to numbers in the Telephone Company's network with NXX codes that have been designated as number portable, that are responsible for making a query to a data base containing information necessary to route the call may terminate such traffic to the Telephone Company's network non-queried. When this capability is provided by the Telephone Company's network to complete such calls a default query will be charged under this tariff.

Customers responsible for making the data base query may forward non-queried traffic to the Telephone Company's end office or access tandem switch. This will force the Telephone Company's end office or access tandem switch to suspend call processing, formulate and launch a query via the common channel signaling network to a data base to obtain information necessary to route the call. When the necessary routing information has been returned from the data base to the switch that launched the query, call processing is resumed and the call is routed to the correct network switching element for completion to the called party.

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34. Service Provider Number Portability (SPNP) Service (Cont'd)

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34.2 <u>SPNP Service Application</u> (Cont'd)

34.2.3 SPNP Data Base Query Service

Customers terminating calls to numbers in the Telephone Company's network with NXX codes that have been designated as number portable may be responsible for making a query to a data base containing information necessary to route the call. Customers may query the Telephone Company's data base using interconnection with the Telephone Company's common channel signaling network. This capability is provided under this tariff as an optional access service.

Customers responsible for making the data base query may arrange in advance to query, via the common channel signaling network provided in Section 23 (Common Channel Signaling/Signaling System 7 (CCS/SS7) Interconnection Service), the Telephone Company's data base which contains information necessary to route the call. When the necessary routing information has been returned from the data base to the switch that launched the query, call processing is resumed and the call is routed to the correct network switching element for completion to the called party.

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34. Service Provider Number Portability (SPNP) Service (Cont'd)

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34.3 Service Provisioning

SPNP service procedures will be applied uniformly to all users of the Telephone Company's SPNP Service. The Telephone Company's SPNP database will receive and respond to all queries, including the Telephone Company's queries, as defined in the following Technical Reference Publications:

- (A) Bellcore GR-2936, Local Number Portability Capability Specification
- (B) Illinois Number Portability Workshop
 - (1) Generic Switching and Signaling Requirements for Number Portability
 - (2) Generic Requirements for SCP Application and GTT Function for Number Portability
 - (3) Generic Operator Services Switching Requirements for Number Portability

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34. Service Provider Number Portability (SPNP) Service (Cont'd)

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34.3 <u>Service Provisioning</u> (Cont'd)

34.3.1 Manner of Provisioning

SPNP Service will be provisioned using the Location Routing Number (LRN) solution. LRN associates an NPA-NXX-XXXX number with each central office switch that serves ported lines. This number will be known as the LRN for that switch. The LRN will be used as a network routing number for calls to ported numbers served by that switch. The LRN will share an existing NPA-NXX assigned to the specific office it represents. All switching equipment types used by the Telephone Company have LRN functionality using AIN protocol.

With SPNP, a subscriber served by one switch (the "donor" switch) may move their service to a different switch (the "recipient" switch) while retaining their directory number (DN). The LSP of the recipient switch will send information to the Regional Service Management System/Number Portability Administration Center (RSMS/NPAC), the third-party administrator/database, for the porting subscriber. This information will include the porting DN, the LRN of the recipient switch, and Destination Point Codes (DPCs) for CLASS and LIDB TCAP messages. This information is downloaded to all LNP databases in the area of portability.

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34. service Provider Number Portability (SPNP) Service (Cont'd)

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34.3 Service Provisioning (Cont'd)

34.3.1 Manner of Provisioning (Cont'd)

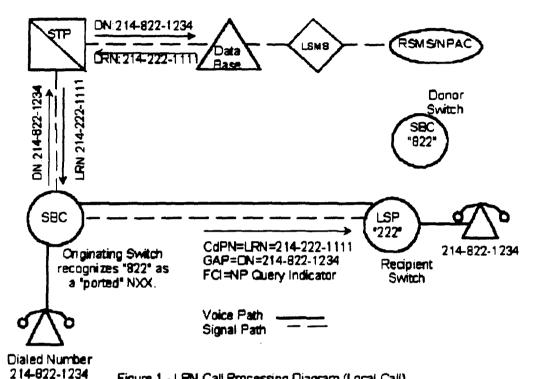


Figure 1 - LRN Call Processing Diagram (Local Call)

- (1) Caller dials Line B (214-822-1234).
- (2) The Originating Switch performs digit analysis on the dialed digits to determine how to route the call. The switch determines that B is in a portable NPA-NXX (214-822) and the line (214-822-1234) does not reside on the switch.
- (3) The switch sends an AIN (Info Analyzed) query based on the dialed digits to the SPNP database.
- The SPNP database sends an AIN (Analyze Route) response containing the LRN of the Recipient Switch.
- The Originating Switch receives the SPNP database response and analyzes the data. The LRN is translated in the LNP Routing Tables and an ISUP route out of the switch is determined. The LRN is stored in the CPN (Called Party Number) parameter and the dialed digits are stored in the GAP (Generic Address Parameter) of the ISUP IAM message. The FCI Translated Called Number Indicator is set to indicate a query has been done (set to "translated number").
- The call is routed to the Recipient Switch based on the LRN.
- (7) The Recipient Switch receives and processes the contents of the IAM message. The switch determines that an LRN is received and that it is the switch's LRN. The switch replaces the CPN parameter's contents with the dialed digits stored in the GAP. The switch does digit analysis on the dialed digits and finds the subscriber on the switch.
- (8) The Recipient Switch completes the call to the subscriber (Line B).

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34. Service Provider Number Portability (SPNP) Service (Cont'd)

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34.3 <u>Service Provisioning</u> (Cont'd)

34.3.2 Limitations

SPNP Service is to be used only on a call-by-call basis for query service and cannot be used for purposes other than those functions described in 34.2 (SPNP Service Applications) unless expressly authorized in writing by the customer and the Telephone Company.

Information residing in the Telephone Company's SPNP database is protected from unauthorized access and may not be stored in a customer's data base or elsewhere for any reason.

The LRN method of number portability is limited to circuit switched calls, excluding choke network NXX until industry standards are defined. Customers with directory numbers that are used for both circuit switched (e.g., voice and/or data) and packet data can port their directory numbers but must disconnect the packet service and reconnect with their new service provider. SPNP Service does not apply to Service Codes (e.g., 411) or Service Access Codes (e.g., 500, 700, 800 and 900).

Groups of lines (e.g., multi-line hunt groups, centrex groups) cannot port separately. If only one directory number in the group ports, it will be removed from the group.

However, the entire group of directory numbers may port. The functionality associated with the ported number is determined by the new service provider.

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34. Service Provider Number Portability (SPNP) Service (Cont'd)

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34.3 <u>Service Provisioning</u> (Cont'd)

34.3.3 Network Management

The Telephone Company will administer its network to ensure the provision of acceptable service levels to all telecommunications users of the Telephone Company's network services.

The Telephone Company maintains the right to apply automated or manual protective controls which would generally be applied as a result of occurrences such as failure or overload of Telephone Company, customer facilities, or other networks, natural disasters, mass calling or national security demands.

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34. Service Provider Number Portability (SPNP) Service (Cont'd)

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34.4 Rate Regulations

This section contains the specific regulations governing the rates and charges that apply for SPNP Service.

There are three types of rates and charges which apply to SPNP Service. These are monthly rates, usage rates and nonrecurring charges. For billing purposes, each month is considered to have thirty (30) days.

Specific rates and charges are set forth in 34.5 (Rates and Charges).

34.4.1 Rate Elements

The following provides a list of the various SPNP Service rate elements and how the rate elements are defined. The query rate element applies for each query received at the Telephone Company's data base.

- SPNP Service Charge (described in (A) following)
- SPNP Query Prearranged Charge (described in (B) following)
- SPNP Query Default Charge (described in (C) following)
- SPNP Database Query Charge (described in (D) following)

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34. Service Provider Number Portability (SPNP) Service (Cont'd)

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34.4 Rate Regulations (Cont'd)

34.4.1 Rate Elements (Cont'd)

(A) SPNP Service Charge

The SPNP Service Charge rate element applies to and provides the capability necessary for the Telephone Company's local and general exchange and lineside access services (e.g., FGA) customers to complete calls to any directory number within their local calling area.

For customers who are certified as eligible for the federal Life Line service program, the SPNP charge will not apply.

(B) SPNP Query - Prearranged Charge

The SPNP Query - Prearranged rate element provides for the identification of the LRN associated with the directory number including transport of the query to and from the database. In addition, an Access Order Charge will apply as specified in 5.3.1 (Access Order Charge).

(C) SPNP Query - Default Charge

The SPNP Query - Default rate element provides for the · identification of the LRN associated with the directory number including transport of the query to and from the database.

(D) SPNP Database Query Charge

The SPNP Database Query rate element provides for the identification of the LRN associated with the directory number being queried including transport to and from the STP, provided in connection with the service provided in Section 23. In addition, an Access Order Charge will apply as specified in 5.3.1 (Access Order Charge).

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34.4 Rate Regulations (Cont'd)

34.4.2 Nonrecurring Charges

Nonrecurring charges are one-time charges that apply for a specific work activity. Nonrecurring charges are applicable for the installation of the service and for rearrangements of the service. In addition, an Access Order Charge will apply to the SPNP data base query and SPNP Query - Prearranged services as specified in 5.3.1 (Access Order Charges).

(A) Point Code Translation

A nonrecurring charge applies for the translation of the signaling point code as applicable to the SPNP data base query.

34.4.3 Monthly Rates

Monthly rates apply on a per line basis which are fixed recurring rates that apply each month or fraction thereof, that a specific rate element is provided.

(A) SPNP Service Charge

A fixed monthly rate applies on a per line basis to each local and general exchange and line side access service. customer.

34.4.4 Usage Rates

Usage rates apply on a per unit basis, i.e., per query, when a specific rate element is used. Usage charges are accumulated over a monthly period. These are:

- (A) SPNP Query Prearranged
- (B) SPNP Query Default
- (C) SPNP Database Query

34.4.5 Determining Usage Charges

Usage charges are developed by the Telephone Company based upon recordings of customer queries to the database. If such recordings are not available, the Telephone Company will develop monthly charges based on an average number of queries per month.

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34. Service Provider Number Portability (SPNP) Service (Cont'd) (N) 34.5 Rates and Charges Rate Per Month 34.5.1 SPNP Service Charge, per line \$.XX Rate Per Ouery 34.5.2 SPNP Query - Prearranged Charge \$.XXXXX 34.5.3 SPNP Query - Default Charge \$.XXXXX 34.5.4 SPNP Database Query Charge \$.XXXXX Nonrecurring Charge 34.5.5 Point Code Translation, \$XX.XX per originating point code (\dot{N})

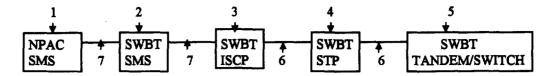
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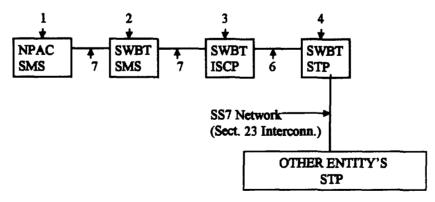
The SWBT network elements that provide Service Provider Number Portability Service (SPNP) are:



- 1. NPAC SMS: third party administered SMS to which entities enter data (e.g., telephone number, Location Routing Number (LRN) of switch to which it is to be routed, etc.) about the telephone numbers that they port
- 2. SWBT LSMS: NPAC SMS downloads to SWBT's and other entities' LSMSs the data that it receives regarding ported numbers; dedicated to number portability
- 3. SWBT ISCP: SWBT LSMS downloads ported telephone number information applicable to that ISCP's coverage area; dedicated to number portability
- 4. SWBT STP: Acts as 'traffic cop' for messages that arrive at the STP, directs messages to correct database, e.g., LNP ISCP
- 5. SWBT TANDEM/SWITCH: contains LRN software to determine if called telephone number contains a 'portable' NXX; software dedicated to number portability
- 6. SS7 network: provides transmission path for signaling of messages between the above listed network elements; link between the ISCP and the STP is dedicated to number portability
- 7. Data Link: provides transmission path for data between the NPAC SMS, the SWBT SMS, and the SWBT ISCP; dedicated to number portability

COST RECOVERY:

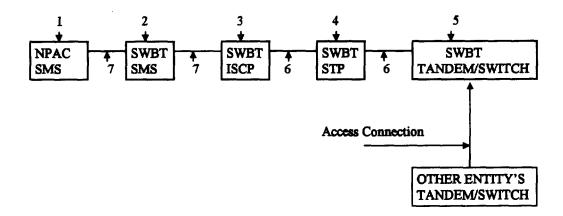
- 1. Use of SWB 's facilities by other entities, SPNP Data Base Ouery Service:
 - a. Prearranged queries with access at SWBT's STP via SS7 network:



Recurring costs to be recovered by query: 3 + 4 + 6

To whom charge applies: entities that perform their N-1 responsibility using SWBT's data base - their network determines the need for, and launches, a query. (This service may also be arranged by contract, e.g., CMRS.)

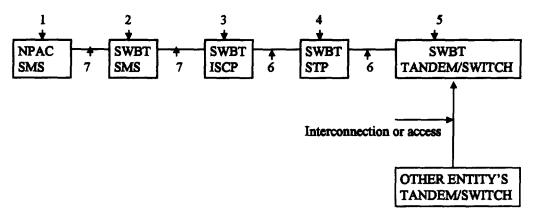
b. Prearranged queries with access at SWBT's tandem/switch, SPNP Query Service:



Recurring costs to be recovered by query: 3 + 4 + 5 + 6

To whom charge applies: entities that elect to perform their N-1 responsibility by arranging it through SWBT. (This service may also be arranged by contract, e.g., CMRS.)

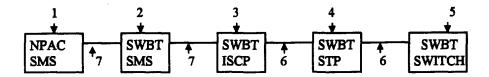
c. Default, SPNP Query Service:



Recurring costs to be recovered by query: $3 + 4 + 5 + 6 + \cos t$ of additional capacity to handle unknown quantity of occurrences.

To whom charge applies: entities that do not perform their N-1 responsibility - their network does not determine the need for, nor launch, a query. Arranged by tariff.

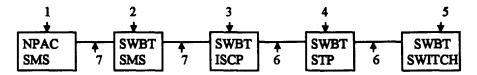
d. Queries caused by end users of entity buying SWBT's unbundled switch port element:



Recurring costs to be recovered by query: 3 + 4 + 6

To whom charge applies: LSPs that buy SWBT's unbundled switch port element. This charge will be a part of the negotiated interconnection agreement.

2. Service Provider Number Portability Service (SPNP) Charge:



Costs to be recovered by this Service Charge: [recurring costs of 1 + 2 + 3 + 4 + 5 + 6 + 7] + [non-recurring costs of 1 + 2 + 3 + 4 + 5 + 6 + 7]

To whom charge applied: SWBT's local exchange and line side access services, including resold leal exchange, (except customers certified as LifeLine eligible) on a per line per month basis.